

THE TORPET

BULLETIN OF THE TORONTO PET USERS GROUP ISSUE No. 5 APRIL 1981

U.S. GUEST TO SPEAK AT WESTSIDE

Jim Strasma, better known to the assembler people for his co-ordination work with the ASSEM/TED Users Group (ATUG) is coming to Toronto during the week of May 18-24 and has agreed to speak to the West-End meeting on May 20th.

Jim is an associate minister with the Grace Methodist Church in Decatur, Illinois. His interest in computers stems from the time he had an idea that perhaps a microcomputer might be useful in keeping track of the church's congregation!!! At that time, the Altair at over \$3000 was a little much, but the PET, at about \$800 seemed to fill the bill, so Jim went to work to make the PET work for him. With forays into Basic in '78 and then into Assembler in '79, Jim has wrestled with the best of them, and he has published many of his findings. Jim's interest is infectious and he's very likely going to touch on his efforts to sort the 3000 names in his congregation when he speaks on May 20.

We are looking forward to having Jim with us then.

OVER 400 MEMBERS

Only two months ago in the March issue of the TORPET, we announced that the membership had surpassed 300. It has now gone pass 400 (403 at last count) and is still climbing. The move to Toronto brought us a great deal of new members while the group at Sheridan College is doing very well with 70 to 80 people attending. The Club's monthly release disk incorporates programs from both meetings in April and I hope will continue to do so in the future.

Chris Bennett
Membership Chairman

TORPET GOES WEB

With this edition of the TORPET we have finally achieved what the editor hopes will be the permanent format. There are of course still many improvements to come. With our next issue we hope to include, for the first time, half-tone photos. So, if you own a camera bring it to the meetings and try to get a good candid shot. Other good photo subjects are PET installations that you know about and any other computer clubs or conventions that you attend.

In the next issue, hopefully, we will also include output combined from Dave Goff's goffproofing program and Gord Campbell's prettyprint. If this succeeds we should have listing quality unexcelled anywhere.

Either starting in the next issue, or more likely in the summer issue, we hope to have a complete annotated directory of the club library. A massive undertaking depending

WEB cont. on p.16

CALENDAR

MAY

13	Central
20	West Side
22	M.L. Group

JUNE

10	Central
17	West Side
19	M.L. Group

West Side chapter meets at
Sheridan College

Central chapter meets at Lea-
side Highschool

M.L. group meets at George
Brown College

the TORPET

published by the -
TORONTO PET USERS GROUP

Executive:

Michael Bonnycastle
president

Chris Bennett
secretary

Sandy Caven
treasurer

David Hook
librarian

Jim Hindson
Westside Co-ordinator

Don Whitewood

Steve Punter

Gordon Campbell

Bruce M. Beach Editor:

Direct Membership and Advertising
requests to the club secretary:

Chris Bennett
381 Lawrence Ave. West
Toronto, Ontario
M5M 1B9

(416) 783-1645

Submissions may still be made to:

Bruce M. Beach
Horning's Mills
Ontario, L0N 1J0
telephone (519) 925-6035

or now to:

Barb Bennett
381 Lawrence Ave. West
Toronto, Ontario
M5M 1B9
telephone (416) 783-1645

BULLETIN BOARDS

by Gord Campbell

Yes, that's right. Bulletin Boards. Plural!

You now have your choice of three PET bulletin board systems in Toronto. The 'club' system has been operating for about a month. It operates out of Marketron during hours when the store is closed. That means from about 6:30 most evenings, an hour later on Thursday and Friday. The system should be up from Saturday evenings until Monday morning. The phone number is 923-1917. If the phone rings several times, that may mean the system is in use and you have been bounced up to the next number. It may also mean the system is 'down'. Try again in a half hour.

The system has had well over 100 calls, and currently has about 30 messages.

The other system which I have tried is Steve Punter's. This is available from about 6:30 to 11:30 evenings and all day Sunday. Steve has done some very clever engineering to have the phone automatically answered using the Commodore Modem. This is an acoustic coupler, and normally requires someone to manually pick up the phone handset and place it in the modem.

Please don't call Steve's number after hours, since this may result in the phone being answered by an angry Punter. The number is 624-5431.

Steve's system is the first one in Toronto to support program up-load and down-load. He is distributing the terminal software without charge. It requires a disk to store a file received from the modem as a program. Versions are available for the Commodore modem (8010) and the Neeco connection. It should also allow transmitting of Wordpro files, since they look kind of like programs.

The third system is expected to be operational about the first of May. It is operated out of Sheridan College. The number to call is 274-2952, which is a Mississauga number. This system is also expected to have program up-load/ down-load capability. The method planned is simpler but slower than Steve's. It should be possible to install the method into existing terminal programs. Hopefully we will have more details by the next club meeting.

messages, and retrieve same. There are index functions which let you look at a summary of messages without dumping out the whole works. Security is not a hot item - anybody can look at anything, just like a real bulletin board with notices posted on it.

The big function is of course program swapping. This is working, as Steve has demonstrated. Hopefully, someone will take on the programming for this function without the need for a disk

And what do you need to access a bulletin board? A time-sharing terminal such as a Decwriter, Silent 700, or Vucom will work. But we aren't the terminal club. So, if you have a PET and modem, and a program which lets you run as an ASCII terminal, you are in business. The Commodore modem is one simple answer. Another is the Neeco connection. The Modem-80 hopefully will be yet another. The cheapest potential solution is the Electronic Systems modem, but this has yet to be proven working on a PET.

Try them out. This may be the easy way to get that question answered, or sell that printer which has just been upgraded.

APRIL DISK

tpug disk apr/81

universal wedge
copy all
easy edit/tape
easy edit/disk
easy edit/c
page1 eze edit
page2 eze edit
tax 80 ont v3.0
page3 eze edit
page4 eze edit
page5 eze edit
page6 eze edit
atari ii
cannata
journal
fast skip 2022
mail list 4.1
memo calendar
bar graph 2.4

BARB BENNETT NEW ASSISTANT TORPET EDITOR

We are most happy to announce the acceptance of the assistant editor's position by Barb Bennett. Barb is a fulltime systems analyst and a group leader for a programming group at one of the major banks. She also teaches ballroom dancing on a night that conflicts with our club meetings, which is why we do not see her there so often as before. And she is also the wife of Chris Bennett. Need we say more?

We are most gratified that Barb is going to take over the arduous task of collecting articles from contributors. The foremost improvement we would like to see is a greater range of contributors. Many of the old standbys, Chris Bennett, Dave Hook, Michael Bonnycastle, Gord Campbell, (and hopefully your's truly) have done an admirable job in keeping the paper filled with interesting and pertinent information. But, there are lots more of you out there with all sorts of interesting insights, and novel projects. Write us a note telling us your idea, or describing your project.

At the last westend meeting I suggested that it would be interesting if people would

just propose projects. Even if you feel that you do not have the time or the capability of carrying out the project yourself, there may be someone else who would be willing to take it up. If you would perhaps like to join effort with someone else the TORPET is certainly a good place to find that person because we will be glad to run an article describing your desired project.

To submit an article or comment to the TORPET you may just write it out in any old fashion that pleases you on any medium that you can find. Child's crayon on the white shirt off your back will be accepted. However, if you happen to have access to a WORDPRO or FINAL WORD (most preferably the latter) wordprocessor, then please submit a diskette containing your story file. We will return the diskette.

Stories, articles, programs or what have you may be any length but please break it up into 25 sector lengths. If you use Wordpro please skip five blank lines at the beginning and it is not necessary to use any formatting commands.

The SWARM

The SWARM (SWap a RoM) module allows all 40 column Pets (but not the original 8K Pets) to run both BASIC 4 and BASIC 2. The Pet on Power-up is set to BASIC 4 but can be converted to BASIC 2 in two ways. The first is the use of a short machine language program put into the second cassette buffer. When a SYS 826 is issued the BASIC is changed. Doing another SYS 826 puts it back into BASIC 4.

The second way of switching to BASIC 2 is to POKE a value into location 59448 (Any value will do) and quickly resetting the machine with a hardware reset switch. To set the machine back to BASIC 4 which is considered the normal mode, a POKE to location 59452 must be done.

Since the SWARM board consists of two rows of 7 ROM sockets, there are three sockets free on the BASIC 2 side and two sockets free on the BASIC 4 side. Four of these sockets can be changed under software control. The fifth which is location \$A000 on the BASIC 2 side is considered part of the system ROMS. By POKEING a

value into location 59444 the two sockets on the BASIC 4 side are switched with the two sockets on the BASIC 2 side. This means that if you have the Command-O and Visicalc ROMs both of which go into location \$9000, you can switch them without switching the version of basic.

The installation of the SWARM board consists of removing all the Basic Roms from the machine and installing them into the SWARM board. At the time you can also install the other Basic Rom set while the board is outside the Pet. Next comes the difficult part. It is best to remove the entire Pet printed circuit board and then insert the SWARM board in place of the original Rom locations. Even better, get the dealer to do it for you.

I have had the SWARM board in my pet for about 3 weeks now and find it to be easy to use and very handy. Now I can have BASIC 4 in my machine while still keeping the capability of switching back to BASIC 2 for certain machine language programs.

The SWARM board is available for \$150 from Batteries Included, 71 McCaul Street (F6), Toronto. At last report there was still a plentiful supply.

Chris Bennett

PETER SMITH AT

richvale telecommunications

(YORK HOME TV)

10610 BAYVIEW AVE.

UNIT 18

884-4165

L4C 3N8

PET RENTALS

\$25.00 per week

**All CEAB and TPUG
tapes available**

Tape Copy Service

**Used Centronics 779 printers
for \$599**

**Complete CANADIAN Payroll
plus other special programs**

(call for information)

Used PETS For Sale

MEETING NEWS

CENTRAL CHAPTER

The March 18 meeting was well attended despite the shift to the third Wednesday of the month. The meeting started off with Gord Campbell, who commented on the Bulletin Board, and released the number, 923-1917. It can be called anytime after normal commercial hours, as it is resident in a retail store.

Then Bill Twyman continued his discussion of Data Base Management, describing indices and how to construct an index for relative files. Paul Higgenbottom responded, and added to Bill's discussion, going over the binary search technique of finding a key in a sorted list of keys.

After the break, John Stovekin of BMB discussed the development and future release of the Super PET by Commodore. BMB will be making the first forty or so units in Canada, largely for Waterloo to work on, and the machines will be equipped with four or five resident languages - Waterloo Basic, Pascal, Fortran, APL, and Assembler. The machine will be an ideal development tool for large computers, having interpretive operation. All the variables are saved when changes to the programmes take place, so if the programme under development crashes, you can change the line at fault, and then continue to run the programme.

George Piasecki discussed a data base management system which he has found useful and illustrated it in action.

Finally, Jim Butterfield talked a bit about his most recent Income Tax programme, and finished off with a short snappy accounting programme which was distributed at the following copy session.

KEITH FALKNER

Word has come to us that Keith Falkner is leaving his position at Data Crown and is moving to Florida where he will be working fulltime with a company developing 6502 software, mainly for a fruit type of computer.

We will miss Keith and his creative mind. He has passed many novel suggestions our way. One of the latest was this little one line program. Try it and you will see what a smarty your PET really is.

WESTSIDE CHAPTER

The West End chapter of TPUG met in the lecture hall at Sheridan College on Wednesday April 15. There were about 70 to 80 people present.

The evening was started off by Hal Mueller who showed us a voice recognition and synthesis unit called the COGNIVOX. This device is capable of recognizing a vocabulary of 32 entries chosen by the user as well as replying with these words. The voice recognition was not perfect but showed us the possibility of things for the future. This device is \$249 in U.S. funds.

The next speaker was John Easton who demonstrated a Calendar and Bar Graph program (See the April TPUG disk). The Calendar program allows you to write down all the events that are going on during a month and then printing the month calendar with all these events shown on the listing.

The meeting then broke for coffee. This was a minor disaster since we had the coffee set up inside the hall with no room to move. Eventually everything sorted itself out and we all got out coffee.

The second half of the meeting was kicked off by Bruce Beach who gave a lecture on the basic components of a computer plus a description of some of the new flat screens coming out on the market. This, Bruce said, should allow us to put a full sized micro-computer in a briefcase. He then showed us a micro-computer which he has been developing which will fit into a briefcase.

Finally Chris Bennett showed a subroutine in BASIC which allows the Commodore 2022 printer to fast eject to the top of the next page. The paging rate was about 6 lines per second. This was followed by an update of the mail list program and a description of his new relative record version of the mail list which allows 1000 names on a 2040 drive and 2400 names on an 8050 drive.

The meeting then broke up for the copy session.

IF $E=MC^2$ THEN

PRINT "EINSTEIN WAS RIGHT"

MAIL LIST PROGRAM

In the February TPUG meeting I gave out my mail list program which consisted of 6 programs. MAIL LIST 4.0 is the startup program for the 8032 and 40 column Pets with BASIC 4.0. MAIL LIST 2.0 is the startup program for 40 column Pets with BASIC 2.0. These programs load an assembler routine in upper memory and seal it off from Basic. They both then call the MENU program in which one of the three main programs are called. This mail list holds 600 names per diskette although garbage collection in BASIC 2.0 machines starts becoming a problem after 300 or 400 names are on file. Since that time I have had a great deal of positive feedback from many people and have decided to continue to support further developments in my mail list.

The first thing I have done is produce an update to MAIL LIST 4.0 because of a possible problem I have found. The new program is called MAIL LIST 4.1 and just replaces MAIL LIST 4.0. This was released at the West end meeting in April and will be released at the Central Meeting in May. I will also be releasing to club members a Relative Record version for those people with BASIC 4.0 Computers and DOS 2.0 Disk Drives. This version will hold up to 1000 Name on the 4040 (2040) disk and 2400 Names on the 8050 Disk. An alternate index Based on the Code field is also included as an optional feature.

Although the mail list is fairly easy to run, I will be including a few pointers over the next 2 or 3 issues of the TORPET on some features that are not obvious at first glance. The first point is do NOT run the mail list with DOS support since the will cause the program to crash. It is best to reset the computer and then LOAD and RUN the MAIL LIST 2.0(4.0).

In the UPDATE program, there is a way of scanning through all the names on disk without re-typing the sort key. First select option 2 (CHANGE) and type in the key where you want to start looking. When the name has been found, Press the Up Arrow key to scan forward and the Arrow Left key to scan backwards. If you don't know the

exact name you want to look for, type in the first 2 or 3 characters that seem close and hit return. The program will then find the name that is closest to that key. For example, if you want to see all the SMITH SMITH's, Type SMITH and the program says NOT FOUND followed by the next highest key which may be SMITH D. Then by scanning forward you will be able to find the actual name and address you need.

A suggestion for coding up the key fields is as follows. Use the Last name field for the last name of the people on the list and the initial field for a single initial. If a duplicate name is found on let's say SMITH J , then add the next J Smith as SMITH J1 followed by SMITH J2.

In the next issue of the TORPET, I will describe how to use the code field to enable you to print the names in different sequences as well as a description of how to select names on the code field.

Chris Bennett

MEMOREX

**A Flexible disc designed
for your PET**

- INDIVIDUALLY TESTED
- ULTRA SMOOTH SURFACE
- REINFORCED HUB RING

It all adds up to data reliability.

Ask for it by name at
your favorite retail outlet.

MEMOREX

THE BASIC BOX

by Chris Bennett

The **BASIC BOX** has been set up to answer the many questions that have come up about certain features of Commodore BASIC. In this column we will answer questions that have been sent in to the TORPET. If you have a problem send your question to:

BASIC BOX

c/o Toronto Pet Users Group
381 Lawrence Avenue West
Toronto, Ont. M5M 1B9

This month's question has been asked by several people and is as follows:

"How do you link basic programs together?"

There are two methods of linking basic programs together. One method preserves the basic variables, the other does not. Let us assume there are three programs that we want to link together. They are MENU, UPDATE and PRINT. The program MENU is only used to call the other two programs depending on which option the user selects. The following code in the MENU program will call in the appropriate module:

```
IF OP equals 1 THEN LOAD0:UPDATE,8  
IF OP equals 2 THEN LOAD0:PRINT,8
```

The first set of statements in all three of these program must be:

```
POKE 42,PEEK(201)  
POKE 43,PEEK(202)  
CLR: RESTORE
```

When the UPDATE and PRINT programs have finished they call back the menu program with (LOAD0:MENU,8)

These statements reset the end of basic pointers (42,43) to the end of current program just loaded (201,202). This is done automatically for us when we load a program from disk and then type RUN in the direct mode. However when a program is loaded from within another program, these pointers are not set. This causes no problem if the program just loaded is smaller then the program that loaded it since the end of basic will point to a location above the new program. However if the new program is bigger than the previous one, the end of basic will point to a location within the new program. Since the end of basic pointer is also the start of your variables, this will cause the basic code at this point to be overwritten by these variables. Using this technique, you cannot pass variables between programs unless you save them to disk and then load them back when the new program has been loaded.

If you wish to pass your variables between all programs, then the first program (MENU) must be the largest program. To call other programs just issue the LOAD to the next module and do not set the end of basic pointers. Also do not issue a CLR or RESTORE. To make the MENU program the largest, either fill with REM statements or use the machine language monitor save command to make it larger than it is.

One more important consideration is strings within basic. If you define a string in a program as follows: (A\$ (equal sign) THIS IS DATA). The string data is located within the basic program. If a new program is called in and A\$ is referenced, then THIS IS DATA will no longer be found. To fix this problem, The string data must be forced into upper memory. This is done by setting all strings in the following way: (A\$ (equal sign) "THIS IS DATA"(plus sign)).

HARDWARE RESET ✓ BREAK SWITCH

The Hardware Reset/Break Switch is made by BMB Compuscience Canada and sells for \$29.95. RESET will force a cold start to BASIC and all programs and data will be cleared from memory. BREAK will break into the machine language monitor with the memory preserved. In order to recover the memory, both the BASIC and stack pointers must be restored. This is a simple procedure that is described in the documentation supplied with the switch.

The Reset/Break Switch consists of a 40 pin socket adapter connected by a three strand wire to the two way switch. This device, unlike other reset switches, does not connect to the Pets User port but is attached inside the machine. The 6520 PIA I.C. chip on the main circuit board is removed and inserted into the 40 pin socket adapter. The socket adapter with the PIA is then inserted into the the main circuit board at the same place the 6520 was removed. The Reset/Break Switch is then mounted on the outside of the Pet using the adhesive strip supplied.

The switch when pulled towards you causes a break to the monitor while pushing away from you cause a hard reset (cold start).

I found this device very easy to install (2 Minutes) and much more convenient than the externally mounted Reset/Break switches. It co-exists very nicely with the SWARM device that I also have installed in my machine. for the moment, this reset switch is only available for new ROM 40 column machines and should be available for 8032 machines in the near future. The device works properly with either BASIC 4 or BASIC 2 inside the Pet. I have found only one device that this reset switch does not work with and that is the A.B. Computer's EPROM burner. This is not much of a problem since I rarely burn EPROMs.

It seems that more and more devices are being made in Canada for the Pet. I hope this is a trend that will continue.

Chris Bennett

Try new Verbatim Datalife diskettes for the performance of a lifetime

Verbatim disks now have 7 data shielding improvements for greater durability, longer life.

Improvements to protect your data from head-to-disk abrasion. Improvements to shield your data against loss due to environmental conditions. Improvements that will deliver a longer lifetime of trouble-free data recording, storage and retrieval than ever before possible. Every Verbatim disk meets or exceeds the most demanding of IBM, Shugart, ANSI, ECMA and ISO standards -- because we insist on Verbatim being the industry standard of excellence. Every bit of every byte of every track of every single disk is tested to insure that Verbatim disks always pass the ultimate test:

satisfying you. So see for yourself, try new Verbatim disks... for the performance of a lifetime. Call or write today.

Quality does not cost more

DYNAMEDIA

1262 Don Mills Rd

Toronto Ontario

441-1595

Available at the Following
Authorized dealers:

Electronics 2001
SBS Computer shoppe'
Richvale Telecom.

5529 Yonge at Willowdale 223-8400
82 University Ave. Toronto 596-1121
10610 Bayview Ave. Unit 18 884-4165

Datalife
TM

**"We play it back,
Verbatim"**

The TRANSACTOR

The TRANSACTOR is Commodore Canada's Technical/News Periodical. I have found this to be one of the best sources of information you can subscribe to. Also the price is right, only \$10 (CANADIAN!). This price is for six issues of Volume 3 mailed to you over the next year. Unlike Commodore USA, Commodore Canada has done a good job in producing their newsletter. (I paid for a subscription to the U.S. newsletter 6 months ago and still have not receive any copies).

The TRANSACTOR is Commodore Canada's Technical/News Periodical. I have found this to be one of the best sources of information you can subscribe to. Also the price is right, only \$10 (CANADIAN!). This price is for six issues of Volume 3 mailed to you over the next year. Unlike Commodore USA, Commodore Canada has done a good job in producing their newsletter. (I paid for a subscription to the U.S. newsletter 6 months ago and still have not received any copies).

The Best of the TRANSACTOR Vol 1, which will be discontinued soon, can still be obtained for \$10 in Canada/U.S.A. or \$12 Foreign. The Best of the TRANSACTOR Volume 2 can be ordered for \$15 Canada, \$17 U.S.A. and \$19 Foreign.

The Subscription for Volume 3 of the TRANSACTOR is \$10 Canada, \$11 U.S.A. and \$13 Foreign. To obtain your subscription, send a cheque or money order in Canadian funds to:

Commodore Business Machines
c/o The TRANSACTOR
3370 Pharmacy Avenue
Agincourt, Ontario
M1W 2K4

Chris Bennett

CLASSIFIED

The TORPET will be accepting Classified Ads for anyone who wishes to sell or buy equipment, software Etc. The cost of an Ad will be 5 cents per word with a \$1.00 minimum.

MEMBERSHIP DUES

For the balance of the present season adult \$10 (otherwise \$5 per time at the door): students and spouses \$5 (otherwise \$2 per time at the door). Membership includes TORPET subscription and library privileges.

COMMODORE INPUT EDITOR

For the January meeting of the Toronto Pet Users Group Paul Higginbottom of Commodore Canada gave us a demonstration of his input editor. He also gave out Source, Object and Binary files for the 40 column and 80 column versions of this editor. The files on our January release disk are as follows:

SOURCE

V40.2.S - 40 COL, BASIC 2 SOURCE
V40.4.S - 40 COL, BASIC 4 SOURCE
V80.4.S - 8032 SOURCE

OBJECT

V40.2.O - 40 COL, BASIC 2 OBJECT
V40.4.O - 40 COL, BASIC 4 OBJECT
V80.4.O - 8032 OBJECT

BINARY

V40.2.B - 40 COL, BASIC 2 BINARY
V40.4.B - 40 COL, BASIC 4 BINARY
V80.4.B - 8032 BINARY

STARTUP SOURCE FILES

SC1.S - OLD
SC1.S I/O FIX

The above files were all created using the Commodore Assembler Development Package. This is needed if any changes to the source are going to be made. However the binary files can be used directly if you wish to execute the program.

The following document from Commodore U.K. outlines some software standards imposed by CBM U.K. for their approved products scheme. The ideas presented may prove helpful when designing software for resale. Following this are some instructions on the use of the screen input editor designed by Paul Higginbottom of Commodore U.K.

Software Standards By Paul Higginbottom

The standards were set up not by Commodore alone, but in cooperation with some key software houses. They were designed to invoke a consistent method of operation throughout software packages. The main problem was a method of data entry. Mike Whitehead (Commodore Software Manager UK), and I, discussed the design of a utility that would be a data entry editor, that could be used by both machine code and BASIC programmers. If a programmer feels that he/she could not incorporate a utility into a

package, then Commodore would like to see that the standards were put in that package. Obviously, it may not always be possible to have all of the standards put into a package, or quite simply, the package was either i) designed before you received this note on standards, or ii) your package would not benefit by having all of the standards imposed. For a product to be approved, Commodore would assess whether the program complies to the standards to a high enough extent.

The Standards

01) Every Screen Display should be titled, or indicated as to its purpose. We suggest that the top one or more lines are used.

02) A status line should exist on the screen. This informs the user what he/she has to do next (e.g 'PRESS 'C' TO CONTINUE'), any errors that occur (e.g 'ILLEGAL STOCK CODE'), what the computer is doing (e.g 'SORT IN PROGRESS').

03) A shifted return should be used, in a data entry editor, to accept a screenfull of information.

04) The 'c' key should be used to proceed off one display onto the next.

The rest of the standards will be on the data entry method. This is assuming that more than one field of information has to be entered at once on a screen display.

05) The editor should allow full editing of each field (insert, delete, cursor left, cursor right)

06) The editor should let the HOME key put the cursor at position one in field one.

07) The CLR HOME key should either i) empty the fields, ii) reset the fields to their default responses (default values), or iii) reset the fields to their contents when the 'record' was displayed. We would recommend option iii) because if the record was blank when the editor was entered, the fields will be cleared, but if for example a CHANGE was being done to a record, and the user has made a complete mess of the changes, then the record can be put back to how it was.

ELECTRONICS 2001
COMPUTERS VIDEO
MICRO ELECTRONICS
5529 Yonge St. Willowdale, Ont. M2N 5S3
223-8400 (Ltd.)

VERBATIM 5 1/4"
DATALIFE DISKETTES
10 for \$49.00

plastic storage box \$2
with purchase of 10 diskettes

POWER ON/ERROR INDICATOR
FOR 2040/4040 DISK DRIVES \$29.95

RESET/BREAK SWITCH \$29.95

C10 cassette tapes \$1 ea.

BOOKS - MAGAZINES - SOFTWARE

08) The RETURN key will either cause a field to be validated immediately, or move onto the next field on the screen. I will explain a little further on what happens if the user is on the last field on the screen.

09) The CRSR UP, CRSR DOWN keys will allow movement back to the previous, and on to the next field, respectively.

10) The RUN/STOP key should provide an abort/help facility. This could either return the user to a menu/command mode, or provide 'help text'.

11) A shifted RETURN should provide immediate exit from the editor, to a screen accept/reject option.

12) If RETURN or CRSR DOWN were struck when in the last field down the screen, or a SHIFT RETURN had been pressed, then the 'SCREEN ACCEPT MODE' would be entered. This is an ACCEPT/REJECT point for the user, rejection may return the user to a menu or allow them to re-edit the data. We would suggest that the user is allowed to re-edit the data if a rejection is made, because if they decide to not enter any data, then the RUN/STOP key would be pressed. The former idea doesn't allow them to re-edit the data if they accidentally drop into the screen accept mode. When in the screen accept mode, a SHIFTED RETURN should be used to accept the data, or any of CRSR UP, HOME, or CLR HOME should be allowed, to let them re-enter the editor. RUN/STOP may also be allowed as a help/abort function.

Our data entry editor

I designed this utility around the rules that I was told should be allowed when in a data entry environment. This routine is all in machine code, and resides at \$7B00 (changes to the editor will be discussed in a moment). The editor uses one byte (\$00) to communicate with BASIC as an error code when the editor returns to BASIC. It also uses one array (SC\$() - screen). The array is for the editor to return the data entered, back to BASIC. A different array may be used.

What set-up does it require?

It requires that delimiters are put on the screen (in any way you like), that show where the fields are. The delimiters the editor currently uses, are less than ('<'), and greater than ('>') symbols. The space between these delimiters is assumed by the editor to be where the field is. The editor requires that BASIC sets up each array element length to the corresponding field length on the screen. This is so that the editor doesn't have to create strings, but merely replace the current contents of each array element with the data read off the screen. The editor gets the length of each array element and reads that many characters from the start of the corresponding field on the screen (1st field is SC\$(0), 2nd field is SC\$(1) etc.). The editor will keep reading fields off the screen, until either i) there are no more elements in the array, or ii) the end of the screen has been reached.

What does the error code do?

Byte \$00 contains an error code which can be 0,1, or 2. The meaning is as follows:-

PEEK(0) is 0 : The data was accepted. An attempt was made to fill the array.

PEEK(0) is 1 : A CLR HOME had been pressed. No attempt was made to fill the array.

PEEK(0) is 2 : The RUN/STOP key was pressed. No attempt was made to fill the array. We would suggest in this case, that an 'ARE YOU SURE ?' message appears in this case.

The editor was designed to always give the user a second chance, but at the same time give the user flexibility without hinderance.

Modifying the editor

On the disk supplied are all of the assembler source files (Commodore Assembler) necessary to make an editor for any version of PET (BASIC2.0, 40 column - BASIC4.0, 40 or 80 column). These may be modified at your own risk.

The disk has one main source file SC1.S which is called by all of the small starter files, depending which PET you have. The nomenclature is as follows:-

'V' (SCREEN SIZE) '.' (BASIC VERSION)
'.' ('S', 'O', or 'B')

This means - 'V'ERSION for a '40'/'80' column machine with BASIC '2' or '4', and it is either the 'S'OURCE, 'O'BJECT, or 'B'INARY file.

The editor enables repeat functions on 40 column machines.

The RUN/STOP key should be disabled before entering the editor, because if it is pressed, during the editors operation, then the return to basic is so fast, that it is picked up by basic, and BREAK IN LINE XXX occurs. Disabling in BASIC 2.0 can be done with the statement POKE144, 49 and then re-enabled with POKE144, 46. BASIC 4.0; disable with POKE144, 88, enable with POKE144, 85.

The memory location of the editor is \$7B00, but this may be changed by altering the origin of the assembler source file. The ' (equal sign) \$7B00 is the statement to change. If you only know the decimal equiv-

alent, then the Assembler will understand that too (e.g ' (equal sign) 32000).

The source listings are fully commented for easy changes.

To use the editor,

- 1) load correct version of editor (v40.2.b, v40.4.b or v80.4.b)
- 2) load program for use with editor

See the EXAMPLE SET-UP80 program for development ideas. This only works on 8032's, but it shows important fundamentals.

Good luck with the work, and I look forward to seeing the results.

Regards,

Paul Higginbottom
Software Advisor
U.K. Software Department

(Ed. note: Paul Higginbottom is now an employee of Commodore Canada.)



MICRO SYSTEMS LTD

GENERAL ACCOUNTING SYSTEM

THE STANDARD FOR SMALL BUSINESS ACCOUNTING™

Supported by BPI Systems to assure you THE SYSTEM will be IMPROVED and EXPANDED to give you the most complete and useable accounting system available at any price.

"...approved by Arthur Anderson, the accounting firm, and has been accepted by Commodore as its factory-approved accounting system."

VENTURE Magazine, September 1980

GENERAL LEDGER SYSTEM

BALANCE SHEET
PROFIT & LOSS STATEMENT
CASH DISBURSEMENTS JOURNAL
(Check Register)
SALES JOURNAL
(Invoice Register)
CASH RECEIPTS JOURNAL
MERCHANDISE PURCHASED JOURNAL

CASH SALES JOURNAL
GENERAL JOURNAL
ACCOUNTS RECEIVABLE LEDGER
ACCOUNTS PAYABLE LEDGER
PAYROLL LEDGER

DESIGNED FOR MICROCOMPUTERS MANUFACTURED BY-

COMMODORE

AVAILABLE AT YOUR DEALER

DESIGNED AND DEVELOPED BY
-BPI SYSTEMS, INC-

A unique combination of Accounting, Business and Programming expertise dedicated to making the BPI GENERAL ACCOUNTING SYSTEM the finest system in use throughout the world...

*THE STANDARD FOR
SMALL BUSINESS ACCOUNTING™*

80 BARBADOS BLVD, UNIT 14. SCARBOROUGH ONTARIO. M1J 1K9 (416) 264-3109

A

ADDORISIO P	298-7312
AHONEN A	421-8016
AHRENS C	637-3525
ALBERY J	889-0362
AMBROSE J	827-9401
ANDRUS D	889-5655
ANNO T	368-3552
ASSELSTINE W	690-4378

B

BACK B	921-2070
BAILLIE F	844-1087
BANGAY T	221-6420
BARNES J	939-7668
BARR A	519/439-6660
BARTOFFY T	789-1581
BEACH B	519/925-6035
BEAULIEU M	746-9875
BECKLEY D	705/726-7165
BENDER W	335-1652
BENNETT C	783-1645
BEREZOWSKI D	807/577-2250
BERNDT C	481-0449
BICEVSKIS R	889-7043
BICKELL J	839-4682
BISHOP F	742-8937
BOBB C	233-5254
BONNYCASTLE M	654-2381
BOURKE R	493-0111
BRUHLMAN H	519/352-7068
BRUNO S	936-4532
BUCKINGHAM C	626-7219
BUDGE M	248-9658
BULL D	923-3640
BUNN F	742-6425
BURKE A	449-7273
BURKHARDL E	884-6422
BUTLER C	845-6665
BUTTERFIELD J	466-2744

C

CALLAGHAN J	699-0357
CAMERON R	924-2092
CAMPBELL C	902/862-2409
CAMPBELL G	492-9518
CAMPBELL T	459-4462
CARSWELL J	925-1927
CARTER S	488-9632
CASEY M	221-6860
CAVEN S	962-0744
CHARLTON J	276-3364
CHAVANNES J	839-9681
CHEE C	688-1832
CHIU A	494-7366
CHRISTENSEN D	484-7966

CJIOIA C	497-5175
CLARK J	668-3213
CLARKSON J	767-4064
COHEN C	493-6810
COHEN M	486-7829
CORBETT B	884-7297
COWAN B	457-6012
CRANE R	227-0504
CROFT G	727-8795
CSOMOR S	677-3105
CURTIS J	828-0893

D

DANGELA J	389-8665
DAVEY I	869-0023
DAVIDOFF L	705/324-4310
DAVIES K	292-9422
DAWSON S	633-5883
DAWSON S	222-4115
DAY G	584-2031
DEMME M	844-4060
DERRICK D	429-5945
DESPAULT L	691-2849
DICKENS P	519/271-8669
DICKSON G	519/941-0491
DOUGLAS S	422-0427
DOYLE D	221-7553
DOYLE S	388-9628
DRAKE R	519/753-3776
DUESBERRY G	634-9758
DUFFIN A	613/475-1996
DUNLOP J	271-1738

E

EASTON J	251-1511
ELIAS P	226-2050
ELLIS E	741-1683
ELLIS L	686-0527
EPSTEIN C	492-0222
ERNA L	781-9468
EVELEIGH R	845-8390
EVERS T	884-5926

F

FALKNER K	466-3734
FARQUHARSON J	519/756-0489
FEELEY J	225-6680
FERGUSON J	444-4897
FERRARI J	677-4799
FIKS H	466-8739
FISCHER P	845-9384
FORSTER C	449-0016
FRAMPTON T	463-8574
FREEMAN M	498-8821
FYFE A	685-6693

G

GACESA J 335-4591
 GARVIN W 277-1928
 GIDDEN B 846-5362
 GLEASON A 842-2027
 GODFREY B 705/647-4326
 GOERTZEN J 249-1093
 GOFF D 889-8101
 GOLDER P 275-6565
 GORDON R 272-0255
 GOSSLING J 422-0143
 GOUGH V 444-8783
 GRAHAM G 705/566-1261
 GREEN D 535-1411
 GREENBERG M 783-5088
 GRIFFITHS J 844-9238
 GUPTA C 977-1546

H

HAMILTON D 898-2863
 HANSON M 827-2419
 HARMER A 705/726-0681
 HARTMANN H 459-9436
 HAY B 694-0860
 HAZELTON D 278-2431
 HECKEL C 889-1085
 HEICHELHEI P 924-9026
 HERON J 493-5165
 HINDSON J 335-5104
 HISCOCKS P 465-3007
 HOOK D 705/726-8126
 HUGHES J 889-5614
 HUNTER R 231-1974
 HURWITZ M 654-3706
 HUTCHINSON T 762-5406
 HYSZKA M 249-5805

I

IACONO S 491-0462
 ILTON M 681-1518
 IRWIN J 445-3243

J

JAINUDEEN I 663-3731
 JEFFREY N 482-1821
 JOHANNSON R 497-9726
 JONKMAN J 627-0467
 JORGENS W 274-3300

K

KARNAS J 767-8876
 KENYON B 762-6179
 KIM K 276-8011

KINAR L 822-8557
 KIPP M 625-0529
 KLEIMAN G 967-0802
 KNOX T 755-9884
 KOOLSTRA H 743-7648
 KRZYZ P 519/886-8278
 KUBATH F 922-1265
 KURTH F 385-2624
 KUTT A 889-1063
 KYRINIS M 465-8419
 KVENICH M 743-0994

L

LAM Y 424-2583
 LANDO R 491-2577
 LANESMITH D 859-0232
 LAUDER A 463-0136
 LAW J 233-2660
 LAWRENCE K 483-9032
 LEDREW D 221-8649
 LEEEE M 705///726-8120
 LEGER C 224-1474
 LEGRAND J 637-2794
 LEWIS R 935-8991
 LOCKWOOD R 593-5140
 LORENZ L 881-1388
 LOTT A 519/432-0309
 LOVELACE R 877-7240
 LOWE A 751-7481
 LOWNDES K 729-2480
 LOWY T 787-5918
 LUI G 762-3302
 LUPO J 291-0482

M

MACDONELL G 519/756-6469
 MACLEAN B 878-4909
 MACNAUGHTO R 270-1235
 MAIERS G 727-8723
 MARCEAU G 418/694-0860
 MARGEL S 782-1714
 MARKS S 489-1345
 MARTIN S 277-1650
 MARTIN W 492-7814
 MCADAMS S 425-6677
 MCAULEY J 694-6920
 MCCAY L 519/225-2479
 MCCLENNY B 727-6849
 MCCOOEY P 529-4363
 MCCOOEY R 529-4363
 MCDONALD D 791-5582
 MCEWEN R 481-7097
 MCHOUL P 826-0868
 MCILVEEN R 388-0398
 MCKYE G 822-3410
 MCLEAN K 484-4855
 MCSWEENEY G 884-0469

MEIER W 519/354-9672
 MERRITT G 827-5949
 MICHEL G 791-4946
 MICHNICK S 278-7737
 MIETHIG G 282-8327
 MILLER M 483-9545
 MORIN P 418/ 547-7153
 MORRIS A 664-6673
 MORRIS R 664-6673
 MORROW R 668-0643
 MOWAT D 519-885-4950
 MOYNIHAN J 844-6332
 MULDER D 519/928-5650
 MURSEC J 593-1949
 MYERS D 472-6738

N

NAHON T 487-9786
 NEUMANN E 519/856-4741
 NEW J 877-3176
 NOWAK E 431-9103

O

OBEDA J 519/768-1398
 OBRIEN W 445-0331
 OBUKURO A 266-1086
 OCONNOR B 281-9454
 ORIOIS J 425-0466

P

PAABOR H 757-7453
 PAGE B 845-5931
 PAJUR E 613/279-2365
 PANNING S 845-8276
 PAPE H 898-4929
 PECK R 421-8610
 PERCIVAL S 461-1490
 PERNU E 270-4630
 PETERSMEYER M 441-1523
 PHELAN N 622-5412
 PIASECKI G 844-9889
 PITTENS J 845-8479
 PLAIN R 666-1070
 PONTES T 826-3484
 PONZO P 519/578-1147
 PRIJATELJ W 275-0605
 PRIJATELY T 244-9582
 PRITCKER B 640-5197
 PUGSLEY W 221-9793
 PUNTER S 624-5431

Q

QUINN P 793-1276

R

RANSTEAD G 728-3409
 REDELMEIER E 832-1117
 REDGERS L 691-3235
 REIBER L 787-6481
 REID B 233-7355
 REISCH S 342-5751
 REITHMEIER G 481-2348
 RICHARD M 239-2897
 RIGBY J 843-2500
 ROBINSON T 889-6958
 ROCHE M 728-2291
 ROSS J 259-4730
 ROUSE B 494-2728
 RUCKLIDGE A 964-1699
 RUCKLIDGE J 964-1699
 RUCKLIDGE W 964-1699
 RUNNALLIS I 878-6437
 RUSHTON P 691-9255
 RUSSELL D 519/927-3269
 RYNDERS G 438-5643

S

SADOWSKI M 225-9508
 SANDERSON R 727-4808
 SASSE W 743-6050
 SCHELLENBE R 689-5694
 SCHMEISS J 625-9977
 SCHOLTE M 293-8549
 SCRIMGEOUR P 422-0582
 SHALES M 967-9120
 SHEPHERD J 244-1487
 SHEPHERD R 846-3602
 SHULTZ J 762-2367
 SIEBENMANN C 922-2235
 SIMON E 637-9474
 SIMPSON D 221-5773
 SKOPIN F 226-3745
 SLOAN J 431-3212
 SLOCUM P 228-8395
 SMALLWOOD B 846-1843
 SMITH D 727-6670
 SMITH P 889-1995
 SPEERS D 519/756-1119
 SPENCER P 281-1155
 SPROULE M 239-9308
 SPROULE T 239-9308
 STEINSKY J 425-4101
 STESKY R 826-4351
 STEVENS M 741-4224
 STEWART G 519/273-1180
 STOVEKEN J 494-7366
 SULLIVAN G 519/579-0594
 SUMNER L 233-9524
 SYLVESTERVICH J 723-6797
 SZABO S 233-6311
 SZILOK J 828-6231

CLUB DIRECTORY

The preceeding is the promised directory. Organizational names have been generally excluded. We have not shown addresses so the list cannot be taken by someone for 'garbage mail' purposes.

Use of area codes and telephone prefixes may be useful in helping to determine which members are close to you. There look to be enough 705 and northern 519 area codes to almost start a northern chapter.

How many would be in favor, next year, of publishing individuals equipment and interests? This might make the directory even more useful.

T
TATTERSALL P 743-1508
TEARE A 793-1593
TILSTON M 727-2243
TOOLE M 486-8616
TROUP H 625-5183
TRUEMAN R 294-0603
TURK M 476-2738
TWYMAN B 497-0595
TWINAM B 742-8778
TYLER J 705/744-5869

V
VANBUSKIRK T 463-7015
VAYDA J 252-8948
VERGE R 506/773-6479
VILLEMAIRE R 284-9791
VISSER T 623-7316
VOLCHECK E 215/388-1581

W
WALLIS K 663-0563
WANAMAKER J 625-0606
WANGE A 461-1062
WARD C 648-2226
WAREHAM V 294-2266
WASLENKO R 299-0772
WATKIN P 447-5868
WATSON J 355-2846
WEAVER D 270-0313
WELLS P 923-6367
WEREZAK R 335-9421
WEVERS B 438-3382
WHITEWOOD D 656-5140
WHITEWOOD J 656-5140
WHITING D 519/833-2009
WHITZMAN R 291-0039
WILLIAMS M 293-8817
WILLMANN B 807/345-7334
WILLS K 844-5775
WILLS S 844-5775
WINHALL R 822-9336
WINSTON D 579-7139
WINTER F 822-9574
WOJDYLO T 463-7015
WOOD J 425-8688
WRIGHT L 519/672-4197

Y
YOLLES D 920-3105

Z
ZVERINA R 725-1918

WEB (cont. from pg 1)

upon a lot of good work being done by the library committee. An additional list of several hundred programs was made available to us at the last meeting by the Ottawa club. This of course includes duplicates of many programs we have already. But it still remains a formidable task for Dave Hook and his assistants to sort out.

We shall continue to accept more advertising but we have established a policy that it will not exceed more than twenty-five percent of the space. With that quantity the TORPET will be self supporting.

Having now gone to a web offset press the size of the TORPET is now predetermined. It must be exactly either eight or sixteen pages every issue. Neither more nor less. It is the nature of the technology. If the printer we are using enlarges his paper storage area we may later be able to return to bond paper rather than the present newsprint.

Anyway, give us some feedback as to whether or not you like the new format.

AD RATES

1/8 page.....	\$15.00
1/4 page.....	25.00
1/2 page.....	45.00
full page.....	85.00